

Claims

1. A method for signal combining within a communication system, the method comprising the steps of:
 - 5 receiving a first signal at a first finger of a receiver;
 - receiving a second signal at a second finger of the receiver;
 - generating a first chip stream from the first signal;
 - generating a second chip stream from the second signal; and
 - 10 combining the first and the second chip streams to produce a combined chip stream.
2. The method of claim 1 wherein the step of generating the first chip stream comprises the step of utilizing a buffered PN sequence to generate the first chip stream.
- 15 3. The method of claim 2 wherein the step of generating the second chip stream comprises the step of utilizing the buffered PN sequence to generate the second chip stream.
- 20 4. The method of claim 1 further comprising the step of Walsh despreading the combined chip stream to produce a symbol stream.
5. The method of claim 4 further comprising the step of deinterleaving the symbol stream to produce a deinterleaved symbol stream.
- 25 6. The method of claim 5 further comprising the step of decoding the deinterleaved symbol stream.
7. The method of claim 1 further comprising the steps of:
 - 30 receiving a third signal at the first finger of the receiver, wherein the first and the third signals are received at separate antennas;
 - despreading the first and third signals within the first finger of the receiver; and
 - combining the first and the third despread signals to produce the first chip
 - 35 stream.

8. A method for signal combining, the method comprising the steps of:
 - receiving a first chip stream, wherein the first chip stream has been despread with a Pseudo Noise (PN) code;
 - 5 receiving a second chip stream, wherein the second chip stream has been despread with the PN code; and
 - combining the first and the second chip streams to produce a combined chip stream.
- 10 9. The method of claim 8 wherein the step of receiving the first chip stream comprises the step of receiving the first chip stream output from a first finger of a receiver.
10. The method of claim 9 wherein the step of receiving the second chip stream
 - 15 comprises the step of receiving the second chip stream output from a second finger of the receiver.
11. The method of claim 8 further comprising the steps of:
 - Walsh desspreading the combined chip stream to produce a symbol stream;
 - 20 deinterleaving the symbol stream to produce a deinterleaved symbol stream; and
 - decoding the deinterleaved symbol stream.
12. A receiver comprising:
 - 25 a first finger path having a first signal as an input and outputting a first chip stream;
 - a second finger path having a second signal as an input and outputting a second chip stream; and
 - a chip combiner having the first and the second chip streams as an input and
 - 30 outputting a combined chip stream.

13. The receiver of claim 12 further comprising:
 a Walsh despreader having the combined chip stream as an input and
 outputting a symbol stream;
 a deinterleaver having the symbol stream as an input and outputting a
 5 deinterleaved symbol stream; and
 a decoder having the deinterleaved symbol stream as an input and outputting a
 decoded symbol stream.
14. The receiver of claim 12 wherein the first finger path comprises:
 10 a first despreader having a first antenna as an input, and outputting a first
 despread signal;
 a second despreader having a second antenna as an input and outputting a
 second despread signal; and
 a combiner having the first and the second despread signals as an input and
 15 outputting a combined chip stream.
15. The receiver of claim 12 wherein the first signal is a first multipath component of
 a received signal and the second signal is a second multipath signal of the received
 signal.
 20